

What is claimed is:

1. A carbon black, comprising:
 - a) an ASTM D2412 measured dibutyl phthalate absorption number greater than 165 cc/100 grams of carbon black; and
 - b) an ASTM D3849 measured mean particle size less than 20 nm.
2. The carbon black of Claim 1, wherein the dibutyl phthalate absorption number is greater than approximately 170 cc/100 grams of carbon black.
3. The carbon black of Claim 1, wherein the dibutyl phthalate absorption number is greater than approximately 175 cc/100 grams of carbon black.
4. The carbon black of Claim 1, wherein the dibutyl phthalate absorption number is approximately 180 cc/100 grams of carbon black.
5. The carbon black of Claim 1, wherein the mean particle size is less than approximately 19 nm.
6. The carbon black of Claim 1, wherein the mean particle size is less than approximately 18 nm.
7. The carbon black of Claim 1, wherein the mean particle size is less than approximately 16 nm.
8. The carbon black of Claim 1, wherein the mean particle size is approximately 14 nm.
9. The carbon black of Claim 1, wherein the dibutyl phthalate absorption number is greater than approximately 173 cc/100 grams of carbon black and wherein the mean particle size is less than approximately 16 nm.

10. The carbon black of Claim 1, wherein the dibutyl phthalate absorption number is approximately 180 cc/100 grams of carbon black and wherein the mean particle size is approximately 14 nm.
11. The carbon black of Claim 1, wherein the carbon black is an oxidized carbon black having an oxygen content in the range of from approximately 5 weight % to approximately 10 weight %.
12. A carbon black for use in inkjet compositions, comprising:
 - a) an ASTM D2412 measured dibutyl phthalate absorption number greater than 155 cc/100 grams of carbon black; and
 - b) an ASTM D3849 measured mean particle size less than 16 nm.
13. The carbon black of Claim 12, wherein the dibutyl phthalate absorption number is greater than approximately 160 cc/100 grams of carbon black.
14. The carbon black of Claim 12, wherein the dibutyl phthalate absorption number is greater than approximately 165 cc/100 grams of carbon black.
15. The carbon black of Claim 12, wherein the dibutyl phthalate absorption number is greater than approximately 170 cc/100 grams of carbon black.
16. The carbon black of Claim 12, wherein the dibutyl phthalate absorption number is greater than approximately 175 cc/100 grams of carbon black.
17. The carbon black of Claim 12, wherein the dibutyl phthalate absorption number is approximately 180 cc/100 grams of carbon black.
18. The carbon black of Claim 12, wherein the mean particle size is less than approximately 15 nm.
19. The carbon black of Claim 12, wherein the mean particle size is approximately 14 nm.

20. The carbon black of Claim 12, wherein the dibutyl phthalate absorption number is greater than approximately 173 cc/100 grams of carbon black and wherein the mean particle size is less than approximately 16 nm.
21. The carbon black of Claim 12, wherein the dibutyl phthalate absorption number is approximately 180 cc/100 grams of carbon black and wherein the mean particle size is approximately 14 nm.
22. The carbon black of Claim 12, wherein the carbon black is an oxidized carbon black having an oxygen content in the range of from approximately 5 weight % to approximately 10 weight %.
23. A process for the manufacture of a carbon black, comprising the steps of:
 - a) combusting an oxidant and a fuel in a combustor section of a carbon black reactor to provide at least one combustion gas, wherein the oxidant and fuel are introduced into the combustor section at a relative oxidant/fuel rate in the range of from approximately 14 to 22 Nm³/Nm³;
 - b) injecting a carbonaceous feedstock into a choke section of the carbon black reactor, wherein the carbonaceous feedstock is injected at an air/carbonaceous feedstock ratio in the range of from approximately 4 to approximately 8 Nm³/kg; and
 - c) reacting the carbonaceous feedstock with the at least one combustion gas in the reactor under conditions effective to provide a carbon black comprising an ASTM D2412 measured dibutyl phthalate absorption number greater than 165 cc/100 grams of carbon black and an ASTM D3849 measured mean particle size less than 20 nm.
24. The process of Claim 23, wherein the conditions effective of step c) comprise heating the reactor to a temperature in the range of from approximately 1350 to approximately 1850 degrees C.

25. The process of Claim 23, wherein the conditions effective of step c) comprise a residence time of the carbon black within the reactor in the range of from approximately 14 to approximately 19 milli-seconds.
26. The process of Claim 23, wherein the carbonaceous feedstock of step b) is introduced into the reactor through at least one make oil spray located in the range of from approximately 20 to approximately 26 inches upstream from a downstream end of the choke section.
27. The process of Claim 23, wherein the carbonaceous feedstock of step b) is an oil having a BMCI value of at least 130.
28. The process of Claim 23, wherein the conditions effective of step c) comprise passing the carbon black through a fluid energy mill.
29. The process of Claim 23, wherein the carbonaceous feedstock of step b) is an oil having a BMCI value of at least 130 and is introduced into the reactor through at least one make oil spray located in the range of from approximately 20 to approximately 26 inches upstream from a downstream end of the choke section; and wherein the conditions effective of step c) comprise: (i) heating the reactor to a temperature in the range of from approximately 1350 to approximately 1850 degrees C; (ii) a residence time of the carbon black within the reactor in the range of from approximately 14 to approximately 19 milli-seconds; and (iii) passing the carbon black through a fluid energy mill.
30. A process for the manufacture of a carbon black, comprising the steps of:
 - a) combusting an oxidant and a fuel in a combustor section of a carbon black reactor to provide at least one combustion gas, wherein the oxidant and fuel are introduced into the combustor section at a relative oxidant/fuel rate in the range of from approximately 14 to 22 Nm³/Nm³;

- b) injecting a carbonaceous feedstock into a choke section of the carbon black reactor, wherein the carbonaceous feedstock is injected at an air/carbonaceous feedstock ratio in the range of from approximately 4 to approximately 8 Nm³/kg; and
- c) reacting the carbonaceous feedstock with the at least one combustion gas in the reactor under conditions effective to provide a carbon black comprising an ASTM D2412 measured dibutyl phthalate absorption number greater than 155 cc/100 grams of carbon black and an ASTM D3849 measured mean particle size less than 16 nm.

31. The process of Claim 30, wherein the conditions effective of step c) comprise heating the reactor to a temperature in the range of from approximately 1350 to approximately 1850 degrees C.

32. The process of Claim 30, wherein the conditions effective of step c) comprise a residence time of the carbon black within the reactor in the range of from approximately 14 to approximately 19 milli-seconds.

33. The process of Claim 30, wherein the carbonaceous feedstock of step b) is introduced into the reactor through at least one make oil spray located in the range of from approximately 20 to approximately 26 inches upstream from a downstream end of the choke section.

34. The process of Claim 30, wherein the carbonaceous feedstock of step b) is an oil having a BMCI value of at least 130.

35. The process of Claim 30, wherein the conditions effective of step c) comprise passing the carbon black through a fluid energy mill.

36. The process of Claim 30, wherein the carbonaceous feedstock of step b) is an oil having a BMCI value of at least 130 and is introduced into the reactor through at least one make oil spray located in the range of from approximately 20 to approximately 26 inches upstream from a downstream

end of the choke section; and wherein the conditions effective of step c) comprise: (i) heating the reactor to a temperature in the range of from approximately 1350 to approximately 1850 degrees C; (ii) a residence time of the carbon black within the reactor in the range of from approximately 14 to approximately 19 milli-seconds; and (iii) passing the carbon black through a fluid energy mill.

37. The product produced by the process of Claim 23.
38. The product produced by the process of Claim 30.
39. An aqueous composition comprising the carbon black of Claim 1 and water.
40. The composition of Claim 39, wherein the composition is an aqueous dispersion.
41. The composition of Claim 39, further comprising a dispersant.
42. The composition of Claim 39, further comprising an acrylic binder.
43. The composition of Claim 39, further comprising an organic co-solvent.
44. The composition of Claim 39, wherein the composition is an inkjet composition.
45. The composition of Claim 39, wherein the composition exhibits a Hunter “b” value less than or equal to -3.00.
46. The composition of Claim 39, wherein the composition exhibits a Hunter “b” value less than or equal to -3.10.

47. The composition of Claim 39, wherein the composition exhibits a Hunter "b" value less than or equal to -3.20.
48. The composition of Claim 39, wherein the composition exhibits a Hunter "b" value less than or equal to -3.30.
49. The composition of Claim 39, wherein the composition has a dispersion quality index in the range of from approximately 0.9 to approximately 1.20
50. The composition of Claim 49, wherein the dispersion quality index is in the range of from approximately 1.0 to approximately 1.10.